

IV. *On the Curassows now or lately living in the Society's Gardens.* By P. L. SCLATER,
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Read June 17th, 1873.

[PLATES XL.—LIII.]

IN the 'Proceedings' of the Society for 1870 (p. 504 *et seqq.*) Mr. Salvin and I gave a synopsis of the species of the Gallinaceous family Cracidæ, so far as they were then known to us.

The various species of Curassows (*Crax* of Linnæus), which constitute the first subfamily *Cracinae* according to the arrangement there adopted, are many of them very common birds in captivity. Specimens are to be seen in every collection of living birds; and this Society has from time to time possessed examples of nearly all the known species. In spite of their being so common, however, the Curassows are by no means well understood, and there has been great confusion among the different species. This has arisen, not only from the general similarity of some of the nearly allied species, but even more from the fact that in some of the species the two sexes are nearly alike in colour, whereas in other species nearly allied they are quite different. It has thus come to pass that it is rare to find these fine birds correctly determined, either in living collections or in museums, and that it is by no means uncommon to see the sexes of two different species associated together as male and female.

With the view of diminishing this confusion as far as possible, and of rendering the determination of the species of *Crax* and their sexes more easy, I have had from time to time, during the last three years, figures taken of the specimens living in the Society's gardens. With the addition of a few other figures from examples in the British Museum and in other collections, there has thus been formed a complete series of illustrations of all the certainly known species of the subfamily, together with one still imperfectly known, the publication of which will, I trust, make the somewhat obscure subject much better understood than heretofore.

The following synonymy of the species, and remarks upon their history, distribution, and other points, are mainly taken from the article by myself and Mr. Salvin above spoken of, such changes only having been introduced and such additions made as various opportunities of examining living and dead specimens of Curassows during the past three years have afforded me.

Genus I. CRAX.

I. CRAX GLOBICERA. (Plate XL. ♂ et ♀.)

Crax globicera, Linn. S. N. i. p. 270 (*partim*); Taylor, Ibis, 1860, p. 311; Salvin, Ibis, 1861, p. 143; Sclater, P. Z. S. 1860, p. 253; Lawr. Ann. Lyc. N. Y. viii. p. 12, ix. p. 139; v. Frantz. J. f. O. 1869, p. 373; Scl. et Salv. P. Z. S. 1870, pp. 513 et 838, et Nomencl. p. 135.

Crax temminckii, Tsch. F. P. Aves, p. 287.

Crax alberti ♀, Fraser, P. Z. S. 1850, p. 250, tab. xxviii. (♀).

Crax blumenbachii, G. R. Gray, List of Gall. p. 15, et Hand-l. ii. p. 253.

Crax alector, Scl. & Salv. Ibis, 1859, p. 223; Moore, P. Z. S. 1859, p. 61.

Crax rubra, Linn. S. N. i. p. 270 (♀); Temm. Fig. et Gall. iii. pp. 21 et 687 (♀); Lawr. Ann. L. N. Y. vii. p. 301 (♀); Bennctt, Gard. & Men. Z. S. ii. p. 225.

Curasso bird, Edward's Gleanings, pl. 295, *undè*, .

Crax edwardsi, Reich. Tauben, p. 134.

Crax pseudalector, Reichenb. Tauben, p. 131, tab. 273. f. 1516 (?).

Crax albin, Lesson, Traité d'Orn. p. 484, et Reichenb. Tauben, p. 135 (?).

Nitenti-nigra: ventre imo crissoque albis: cristæ elongatæ plumis nigris, apicem versus recurvis: loris parçè plumulosis: cera tuberculata et rostro toto luteis; pedibus corneis: long. tota 34, alæ 18·5, caudæ 15·5, tarsi 4·7. *Fem.* castanea, ventre imo cinnameo: dorso superiore plus minusve nigro induto: capite cristato et cervice undique nigris, albo maculatis: alis extus caudaque nigro et ochraceo plus minusve variegatis et transfasciatis.

Hab. Western Mexico (*Deppe*); Tehuantepec (*Sumichrast*); prov. Vera Cruz (*Sallé* and *Sumichrast*); Guatemala, Vera Paz and Pacific coast (*Salvin*); Belize (*Leyland*); Honduras (*Taylor* and *G. Whitely*); Costa Rica (*v. Frantz.*); Veragua (*Arcé*); Panama (*M^cCleannan*).

Linnæus's *Crax globicera* is founded mainly upon the *Crax curassows* of Brisson (Orn. i. p. 300), which is more likely to be intended for this species than any other. Brisson mentions the *tubercula ad basin rostri, rotunda, lutea*—which excludes everything except the present bird and *C. daubentoni*. And as he says nothing whatever of the tail being tipped with white, the balance of evidence is in favour of his having intended to describe the present species. *Crax rubra* of Linnæus, founded upon *Crax peruvianus* of Brisson (*op. cit.* p. 305), is, there can be little doubt, intended for the female of the present bird.

The first author who appears to have correctly identified these birds as male and female is Tschudi, who, in his 'Fauna Peruana,' accurately describes both sexes under the name *Crax temminckii*, from specimens obtained by Deppe in Western Mexico; but he is no doubt in error in supposing that this was the species that he himself saw in the wood-region of Eastern Peru, where it is represented by *Crax globulosa*.

In the first paper on the Ornithology of Guatemala, written by Mr. Salvin and myself, we erroneously called the Guatemalan bird *Crax alector*. This mistake was

subsequently rectified, and the bird referred to *Crax globicera*, which name has generally been adopted by more recent writers for the Central-American species.

In Mr. G. R. Gray's 'List of Gallinæ' this Curassow is called *Crax blumenbachii*, after Spix's figure (Av. Bras. ii. t. 64). It is possible Mr. Gray may be correct in this reference, as we have seen Central-American specimens of the female nearly as dark as is represented in Spix's figure; but if this be so, it can hardly be true, as Spix states, that his specimen was obtained at Rio.

This Curassow is the only species of the genus and subfamily met with in America north of Panama. I have examined a large number of specimens from different localities between the isthmus and Southern Mexico. The male is quite constant in colour, except that in one Panama specimen in Salvin and Godman's collection the tail shows a very narrow margin of white. The female, on the contrary, is very variable, as has been already pointed out in the diagnosis. In some specimens the wings are wholly red, in others much banded with black and cinnamomeous: in some specimens also the tail-bands are very slight, and almost evanescent; in others they are broad and conspicuous. The upper portion of the back varies from black to chestnut.

The Globose Curassow, as it is usually called, is one of the commonest species met with in living collections. Within these last ten years, as will be seen by the subjoined list, at least twenty specimens have been received by the Society; so that we have had ample opportunity of becoming acquainted with it.

List of Living Specimens of *Crax globicera* exhibited since 1860.

<i>a, b.</i> Females	Presented by R. W. Keate, Esq., F.Z.S.	August 9, 1862.
<i>c.</i> Male	} Presented by R. S. Newall, Esq.	August 12, 1864.
<i>d.</i> Female		
<i>e.</i>	Presented by Capt. Abbott.	August 31, 1864.
<i>f.</i> Male	} Purchased.	November 16, 1865.
<i>g.</i> Female		
<i>h.</i>	Presented by Commander Glynn, R.N.	August 20, 1866.
<i>i.</i> Male	} Deposited.	October 20, 1866.
<i>j.</i> Female		
<i>k, l.</i>	Received in exchange.	February 4, 1869.
<i>m.</i> Female	Purchased.	December, 13, 1869.
<i>n.</i> Female	Purchased.	May 25, 1870.
<i>o.</i> Male	} Purchased.	July 28, 1870.
<i>p.</i> Female		
<i>q.</i> Female	Purchased.	July 16, 1872.
<i>r.</i> Female	Presented by Capt. Butler	October 15, 1872.
<i>s.</i> Male	Purchased.	May 15, 1873.

In the female specimen *r* (which died Feb. 26, 1873), Mr. Garrod informs me, the trachea was simple and without convolutions.

2. *CRAX DAUBENTONI*. (Plates XLI. ♂, XLII. ♀.)

Hocco, Faisan de la Guiane, Buff. Pl. Enl. 86.

Crax daubentoni, G. R. Gray, List of Gall. p. 15 (1867), et Hand-l. ii. p. 253; Scl. et Salv. P. Z. S. 1870, p. 516, et Nomencl. p. 135; Sclat. P. Z. S. 1870, p. 671.

Crax aldrovandi, Reichenb. Tauben, p. 134, tab. 272*b*. f. 5038 (♂) et tab. 273. f. 1518 (♀).

Crax globicera, Temm. Hist. Nat. des Gall. iii. pp. 12 et 686; Reichenb. Taub. p. 133, tab. 273. f. 1517.

Crax mikani ♂, Pelzeln, Orn. Bras. p. 343 (♀).

Nitenti-nigra: ventre imo et caudæ apice albis: cristæ elongatæ plumis nigris recurvis: loris plumosis: cera tuberculata et mandibula utrinque ad basin carunculata flavis: pedibus nigricantibus: long. tota 32, alæ 15·5, caudæ 14, tarsi 4·5. *Fem.* mari similis, sed crista ad basin albo obsolete fasciata: ventre et tibiis albo transfasciolatis: cera et rostro nigris.

Hab. Venezuela, near Caracas (*Levraud*); Tucacas (*Wright* and *Warmington*).

This Curassow was confounded by the older authors with *C. globicera*; and it must always, perhaps, remain somewhat of an open question to which bird that name should in strict propriety be applied. Mr. Gray first correctly associated the two sexes of the present bird, and in his 'List of Gallinæ' gave the name *daubentoni* to it, in consequence of the male being figured by Daubenton as the *Hocco, Faisan de la Guiane*, in the 'Planches Enluménées.' This species and its northern representative are certainly close allies, the chief difference between the two males consisting in the present bird having broad white tips to the rectrices. But the females, it will be observed, are very different.

The forest-region of Venezuela is the only locality which I know of for this Curassow. M. Levraud transmitted specimens of it in his extensive collection from Caracas, which I have examined at Paris. In 1870 we received our first living pair of this species, from Mr. James Wright, who obtained them from near Tucacas in Venezuela. In the following year Mr. A. Warmington was kind enough to bring us a male and two females from the same port, and to furnish me with the following notes on the subject.

"The three Curassows (one male and two females) were captured at 'Maron' near Tucacas, N. Venezuela, and at the present time are nearly two years old, having been taken from the nest when scarcely larger than a chick of two months old. They soon became perfectly tame, and would follow me about. When able to fly they made short flights, always quickly returning, and seldom alighting. At night they invariably roosted on the highest spot they could find in the home corral. They are called by the natives 'Porū.' Their cry is a sort of mournful prolonged whistle, and in the forest, when eight or ten are together, has a very singular effect. It is not common to see these birds on the ground. When they alight in a tree they almost invariably utter their cry, and at the same time raise the tail-feathers fan-like, thus exposing the

white plumage beneath, and offering a conspicuous and tempting mark for the sportsman. They are excellent eating. I have never heard of these birds breeding in confinement, though I cannot say they do not. The young ones are exceedingly beautiful delicate little creatures, marked very much like and having a very similar appearance to young Partridges or Quails. They become much attached to individuals who treat them kindly. These birds are common in all parts of Venezuela where there is a forest."

Herr v. Pelzeln has kindly supplied me with accurate coloured figures of his *Crax mikani*, from which it seems evident that the supposed *male* of that species is the female of *Crax daubentoni*, and the supposed *female* the female of *Crax alberti*.

List of Living specimens of Crax daubentoni exhibited since 1860.

a. Male	} Presented by J. Wright, Esq.	September 29, 1870.
b. Female		
c. Male	} Presented by A. Warmington, Esq.	July 11, 1871.
d, e. Females		
f. Male	Presented by George Hall, Esq.	September 5, 1871.
g. Female	Deposited.	October 24, 1871.

3. CRAX ALECTOR. (Plate XLIII. ♂ et ♀.)

Crax alector, Linn. S. N. i. p. 269; Temm. Fig. et Gall. iii. pp. 27 et 689; Vieill. Gal. d. Ois. ii. p. 6, t. 199; Cab. in Schomb. Guian. iii. p. 746; Reichenb. Tauben, p. 130; Bennett, Gardens & Men. ii. p. 9; Pelzeln, Orn. Bras. p. 286; Gray, Gen. of B. iii. p. 486, et Hand-l. ii. p. 253; Sel. et Salv. P. Z. S. 1870, p. 514, et Nomencl. p. 135.

Gallus indicus, Sloane, Jamaica, ii. p. 362 et t. 26, undè

Crax sloanei, Reichenb. Tauben, p. 131 (?).

Purpurascenti-nigra: ventre imo crissoque albis: cristæ brevis plumis nigris, versus apicem recurvis: loris nudis: cera et rostro ad basin flavis, hujus apice cærulescente: pedibus corneis: long. tota 35, alæ 14·5, caudæ 13·5, tarsi 4·5. *Fem.* mari similis, sed crista intus albo parce transfasciata.

Hab. British Guiana (*Schomb.*); Rio Negro, Rio Vaupé, and Rio Branco (*Natt.*).

The species most liable to be confounded with the present Curassow are *Crax globicera* and *Crax sclateri*. From both of these it is distinguishable by the purple tinge of its plumage, which is very noticeable in living specimens, and is also plainly seen in skins. From *C. globicera* it is likewise distinguishable by the naked lores and by the want of the protuberance on the cere; from *C. sclateri* by the absence of the white tips to the tail-feathers and the black thighs. It differs not only from these, but from almost all other members of the genus in the sexes being nearly alike.

The patria of *C. alector* is Guiana, Cayenne, and the adjoining districts of Amazonia up to the Rio Negro. In Upper Amazonia it is replaced by *C. globulosa*.

List of living specimens of Crax alector exhibited since 1860.

a.	Presented by W. Duncan Stewart, Esq.	June 26, 1861.
b, c.	Presented by R. W. Keate, Gov. of Trinidad.	August 9, 1862.
d.	Purchased.	May 3, 1865.
e.	Presented by Mr. Beaumont.	April 10, 1866.
f-i.	Deposited.	July 25, 1867.
j, k.	Presented by Col. May.	August 14, 1869.
l.	Presented by Mr. J. Stanton.	June 6, 1871.
m, n.	Presented by G. Browne, Esq.	September 7, 1871.
o, p.	Presented by Quintin Hogg, Esq.	July 16, 1872.
q, r.	Purchased.	September, 13, 1872.
s.	Presented by George Bruce, Esq.	May 14, 1874.

The specimen *r*, purchased September 13, 1872, was found by Mr. Garrod to be a male on dissection, and to have a small superficial tracheal loop.

4. CRAX SCLATERI. (Plate XLIV. ♂ et ♀, et Plate XLV. ♀.)

Mitu, Azara, Apunt. iii. p. 83. no. 338.

Crax alector, Hartl. Ind. Az. p. 22.

Crax sclateri, Gray, List of Gall. p. 14, et Hand-l. ii. p. 253; Pelzeln, Orn. Bras. p. 287; Scl. et Salv. P. Z. S. 1870, p. 515, et Nomencl. p. 135.

Crax circinatus, Licht. MS. in Mus. Berol. (*teste* Pelzelno).

Crax discors, Natt. MS. in Mus. Berol. (*teste* Pelzelno).

Crax azaræ, Natt. MS. in Mus. Vindob. (*teste* Pelzelno).

Nitenti-nigra: ventre imo, crisso et caudæ apice albis: cristæ mediocris plumis nigris versus apicem recurvis: loris nudis: cera et rostro toto flavis: pedibus carneis: long. tota 32, alæ 14, caudæ 14, tarsi 4: *Fem.* supra nigra, ochraceo-albo, nisi in cervice, transfasciata: crista alba, basi et apice nigris: subtus gula et cervice nigris: abdomine cinnamomeo, pectore nigro transfasciato: cauda nigra, hujus fasciis transversis et apice fulvis; rostri basi obscura, apice cum pedibus flavis.

Hab. Paraguay (*Azara* and *Page*); Brazil, prov. Mato Grosso (*Natterer*).

Azara clearly describes both sexes of this Curassow, which appears to be the sole representative of the group in Paraguay and in the adjacent portion of the Brazilian province of Mato Grosso. It was, however, confounded with other species, or provided only with MS. names, until Mr. Gray described it in his List of Gallinæ in 1867.

As already remarked, the male of this species closely resembles the corresponding sex of *C. alector*; it is singular, therefore, that the females of the two species should be so very different.

We have received four or five living specimens in the Society's collection which have been determined as "*Crax sclateri* ♀;" but I am a little doubtful whether they really belong to this species or to the dubious *Crax pinima*. One of these, spec. *b*, received in 1863, is figured Plate XLV. It differs from the Nattererian specimen (figured Pl. XLIV. fig. 2) in being rather larger, in having rather narrower bands above, and in having the tail-feathers distinctly terminated with white instead of fulvous.

List of living specimens of Crax sclateri exhibited since 1860.

a.	Received in exchange.	March 12, 1861.
b.	Presented by the Prince de Joinville	October 13, 1863.
c.	Received in exchange.	February 21, 1872.
d, e.	Purchased.	January 20, 1874.

Specimen *b*, which died February 9, 1874, was determined by Mr. Garrod to be a female. The trachea was simple, without any loop.

5. *CRAX GLOBULOSA*. (Plate XLVI. ♂ et ♀.)

Crax globulosa, Spix, Av. Bras. ii. p. 50, t. 65 (♂), 66 (♀); Gray, Gen. of B. iii. p. 486, et Hand-l. ii. p. 253; Reichenb. Taub. p. 135; Scl. et Salv. P. Z. S. 1870, p. 515, et 1873, p. 307, et Nomencl. p. 135.

Crax globicera, Bates, Naturalist on the river Amazons, ii. p. 112.

Nitenti-nigra: ventre imo crissoque albis: crista nigra recurva: loris plumosis: cera tuberculata et mandibula utrinque ad basin carunculata flavis: rostri apice nigro: pedibus rubris: long. tota 36, alæ 16, caudæ 14·5, tarsi 4·4. *Fem.* mari similis, sed tuberculo et carunculis rostri nullis et ventre fulvo diversa.

Hab. Upper Amazons (*Spix*); Pebas (*Castelneau* and *Deville*); Rio Napo (*mus. G. N. L.*).

The well-developed yellow caruncles at the base of the mandible distinguish this species from all its allies except *C. daubentoni*, in which the tail is broadly tipped with white. I have only seen one female of this species; it agrees with Spix's figure and description. The variation of the sexes in this bird corresponds to that which obtains in *Crax carunculata*, which has likewise conspicuous caruncles on the base of the bill. In the latter case, however, the caruncles are red instead of yellow.

I have not yet met with living specimens of this bird. The figures are taken from skins in the collection of Mr. G. N. Lawrence of New York, whom I have to thank most sincerely for the loan of them. They were obtained on the Rio Napo.

6. *CRAX CARUNCULATA*. (Plate XLVII. ♂ et ♀.)

Crax carunculata, Temm. Pig. et Gall. iii. pp. 44, 690 (1815); Sw. An. in Men. p. 183; Gray, Gen. of B. iii. p. 486, et Hand-l. ii. p. 254; Scl. et Salv. P. Z. S. 1870, p. 517, et Nomencl. p. 135.

Crax rubrirostris, Spix, Av. Bras. ii. p. 51, t. 67; Max. Beitr. iv. p. 528.

Crax blumenbachi, Burm. Syst. Ueb. iii. p. 345.

Crax yarrelli, Bennett, Gard. & Men. ii. p. 227; Yarrell, P. Z. S. 1830-1, p. 33; Sw. An. in Men. p. 188; Jard. et Selby, Ill. Orn. iv. pl. vi.

Nitenti-nigra: ventre imo crissoque albis: crista nigra versus apicem recurva: loris nudis: ceræ tuberculo parvo et caruncula utrinque ad basin mandibulæ rubris: pedibus corneis: long. tota 34, alæ 15·5, caudæ 13·5, tarsi 4. *Fem.* mari similis, sed crista albo fasciolata et ventre imo crissoque rufis.

Hab. Wood-region of S.E. Brazil from Rio to Bahia (*Max.* and *Burm.*).

This Curassow is easily distinguishable by its red bill, and has therefore been less often confounded with other species than most of its congeners. Burmeister, however, has united it to *Crax blumenbachi* of Spix, supposing that Spix's figure may represent the female of the present bird. This can hardly be so. Spix's plate obviously represents the female of *C. globicera*, or of some allied species of which we do not yet know the male. If his locality (Rio) be correct, the latter is probably the case.

List of living specimens of Crax carunculata exhibited since 1860.

a. Male	..... Purchased.	..... April 5, 1859.
b. Female	..... Purchased.	..... March 12, 1861.
c, d.	Purchased.	..... May 3, 1865.
e. Male	} Received in exchange.	..... February 26, 1867.
f. Female		
g, h.	Presented by Edward Thornton, Esq.	..... May 4, 1867.
i, j.	Deposited.	..... December 2, 1867.
k.	Deposited.	..... October 29, 1868.
l. Female	..... Purchased.	..... May 25, 1870.
m. Male	..... Purchased.	..... December 23, 1873.

7. CRAX ALBERTI. (Plate XLVIII. ♂ et ♀.)

Crax alberti, Fraser, P. Z. S. 1850, p. 246, t. 27; Gray, List of Gallinæ, p. 15, et Hand-l. ii. p. 253; Reichenb. Tauben, p. 136; Sel. et Salv. 1870, p. 517, et Nomencl. p. 135.

Crax mikani ♀, Pelzeln, Orn. Bras. p. 343.

Nitenti-nigra: ventre imo, crissæ et caudæ apice albis: crista brevi, recurva, nigra: loris dense plumosis: ceræ tuberculo et mandibulæ carunculis cæruleis: rostri apice corneo: pedibus plumbeis: long. tota 30·0, alæ 15·5, caudæ 14. *Fem.* nigra: crista albo fasciolata: dorso, alis extus et cauda supra albo anguste transfasciatis: cauda albo terminata: remigibus externis et abdomine toto castaneis: ventre medio crissoque pallidioribus.

Hab. Columbia.

Mr. Fraser first described this Curassow (which may be readily known by its densely feathered lores and blue wattles), from a specimen living in the aviaries at Knowsley in 1850. It is, however, obvious that the bird described and figured by him (*l. c.* pl. xxviii.) as the female of *C. alberti* is not the true female of this species, but that of *Crax globicera*.

Crax alberti is now not unfrequently brought alive to this country. There have been of late years specimens of both sexes in the Society's Gardens, as will be seen by the subjoined list. Its true patria, which was long unknown, is certainly the wood-region of Columbia. A female in the collection of Salvin and Godman was transmitted direct from Bogotá by Mr. G. Crowther. There is a male in the Paris Museum, sent from the same locality by Dr. Lindig, and a female in the same collection obtained near Sta. Marta by M. Bonnecourt.

The bird described by Herr v. Pelzeln as the female of his *Crax mikani*, seems to be the female of this species, judging from the figure of the specimen, with which he has kindly supplied me, as also from his accurate description.

List of living specimens of Crax alberti exhibited since 1860.

<i>a, b.</i>	Purchased.	April 2, 1868.
<i>c.</i> Female	Purchased.	May 25, 1870.
<i>d.</i> Female	Purchased.	July 28, 1870.
<i>e.</i> Male	Deposited.	October 26, 1870.
<i>f.</i> Female	Purchased.	March 1, 1873.
<i>g.</i> Male	Purchased.	January 21, 1874.

As regards the preceding seven species of *Crax*, we are now acquainted with both sexes of each of them, and know the localities in which they occur in a state of nature. There remain some other dubious species, namely:—

1. CRAX PINIMA.

Crax pinima, Pelzeln, Orn. Bras. pp. 287 et 341; Gray, Hand-l. ii. p. 253; Sci. et Salv. P. Z. S. 1870, p. 518, et Nomencl. p. 135.

Crax fasciolata, Spix, Av. Bras. ii. p. 48, t. 62 *a* (?).

Natterer obtained a single specimen of the bird described by Pelzeln as *Crax pinima* in the neighbourhood of Pará, and, as stated by v. Pelzeln, had at first doubts as to its being a valid species. He remarks in his MS. that the *Mutum pinima* of Pará, as it is called there, does not differ from the Curassow of Cujabá and Paraguay (i. e. *C. sclateri*). Afterwards he appears to have changed his opinion, and to have designated the bird of Pará *C. pinima*. On the whole I am inclined to believe that *Crax pinima* is founded on a female *Crax sclateri*. But I should be glad to be able to examine examples of both sexes of the Curassow of Pará, in order to compare it with that of Mato Grosso and Paraguay, the range being rather extensive for one species of the genus.

2. CRAX INCOMMODA. (Plate XLIX.)

Crax incommoda, Selater, P. Z. S. 1872, p. 690, et Rev. Cat. Vert. p. 295.

In 1872 I proposed to give the temporary designation of *Crax incommoda* to the bird living in the Society's Gardens, of which I now give a figure. As will be seen, it comes nearest to the female of *Crax daubentoni*, but is at once distinguishable by the narrow transverse white bars across the upper plumage, and the pale flesh-coloured legs. From the female of *Crax sclateri* (Pl. XLV.), which it likewise somewhat resembles, it is distinguishable by its larger size, white belly, barred thighs, black bill, and differently coloured legs.

This specimen, which was purchased of the Jardin d'Acclimatation of Paris in 1870, died in July 1873. It was examined by Mr. Garrod and ascertained to be a female. It is of large size, measuring in the skin (now in Messrs. Salvin and Godman's collection), total length 32 inches, wing 15, tail 13, tarsus 4; the lores are rather sparingly feathered. Mr. Garrod tells me the trachea in this bird was quite simple.

[On October 30, 1873, we purchased (also from the Jardin d'Acclimatation) what is apparently a second specimen of the same species. It differs, however, in having much more white below, the feathers of the throat and breast being white, with transverse bars of black. There is also more white at the base of the crest. The iris is bright reddish brown; the feet and legs pale greyish horn-colour. This specimen is still living in the Society's Gardens.—P. L. S. March 11, 1875.]

[3. *CRAX VIRIDIROSTRIS*, sp. nov.

Under this designation I have been somewhat unwillingly constrained to place on our register a Curassow which I met with in the Gardens of the Zoological Society of Amsterdam, during a recent visit, and which, having been most kindly lent to me by Mr. Westerman, is now in the Society's Gardens. It is perhaps most nearly allied to *Crax alberti*, having a large caruncle on the lower mandible as in that species. But this and the swollen cere are of a pale green colour instead of blue. It may be characterized as follows:—

Nitenti-nigra: ventre imo crissoque et caudæ apice albis: cristæ plumis brevibus exstantibus retroflexis: rostri cera tumida et carunculis mandibulæ inferioris pallide viridescenti-flavis: pedibus plumbeis: crassitie insignis: major quam *Crax globicera*.—P. L. S. June 3, 1875.]

Genus II. *NOTHOCRAX*.

NOTHOCRAX URUMUTUM. (Plate L.)

Crax urumutum, Spix, Av. Bras. ii. p. 49, t. 62; Gray, Gen. of B. iii. p. 486, et Hand-l. ii. p. 254;

Cab. in Schomb. Guian. iii. p. 746; Reichenb. Tauben, p. 132; Pelzeln, Orn. Bras. p. 288.

Urax urumutum, Burm. Syst. Ucb. iii. p. 347.

Nothocrax urumutum, Scl. et Salv. P. Z. S. 1870, p. 519, et 1873, p. 307, et Nomencl. p. 135.

Rufescens, nigro vermiculata: pilei cristati plumis elongatis pendentibus nigris: cervice undique et corpore subtus castaneis, ventre imo in cinnamomeum trahente: cauda nigricante, rectricum pogoniis externis rufescentibus nigro vermiculatis: spatio oculari late nudo, in ave viva cærulescente: rostro rubro: pedibus rubellis: long. tota 24, alæ 12, caudæ 10, tarsi 2·6.

Hab. British Guiana (*Schomb.*); Rio Negro (*Spix and Natt.*); Rio Pastaza, Upper Amazons (*E. Bartlett*).

We have not yet succeeded in obtaining living specimens of this rare and singular species. Mr. E. Bartlett's notes on its habits (P. Z. S. 1873, p. 307) are as follows:—

"I first saw this beautiful species of Curassow in a Peruvian's house, at Santa Maria on the Huallaga, where it was running about along with the common fowls. The bird appeared to be lively and active, and would fight the dogs and fowls, driving them out of the house. A very curious circumstance is that when one of the hens commenced sitting, the bird would drive her off the nest and take her place; this I witnessed myself: the attempt at incubation, however, was not of long duration; for the Curassow destroyed the eggs, as I was informed afterwards by the owner.

"I ascertained that the bird came from the Rio Pastaza; and I believe it is not uncommon on that river and throughout the dense forests on the north-west bank of the Amazons. I have often heard this bird in the middle of the night near Nauta.

"The Peruvians call it the *Monte Piyu*.

"The habits of this bird render it most difficult to obtain, from its living in holes or burrows in the ground. The Indians remain in the forest all night at the place where it is first heard. I was informed by many of the Peruvians, whose word I could rely upon, that these birds come out at night, and ascend to the top branches of the lofty trees in search of food. The Indians are on the look-out, and shoot them just before sunrise as they are descending to return to their places of concealment, where they pass the day."—E. B.

Natterer (Pelzeln, Orn. Bras. p. 288) gives the same account of this bird's nocturnal habits, but says nothing of its living underground.

Genus III. MITUA.

1. MITUA TUBEROSA. (Plate LI.)

Crax mitu, Linn. S. N. i. p. 270.

Pauxi mitu, Temm. Fig. et Gall. iii. pp. 8, et 685; Gray, Gen. of B. iii. p. 487, et Hand-l. ii. p. 254.

Mitu braziliensis, Reichenb. Tauben, p. 137.

Ourax mitu, Cuv. Règ. An. 1817, i. p. 441; Temm. Pl. Col. 153; Bennett, Gard. & Men. ii. p. 129; Pelz. Orn. Bras. p. 288.

Urax mitu, Burm. Syst. Ueb. iii. p. 349.

Crax tuberosa, Spix, Av. Bras. ii. p. 51, t. 67 a.

Mitua tuberosa, Bates, Nat. on the Amazons, ii. p. 112, et ed. 2, p. 262; ScL. et Salv. P. Z. S. 1870, p. 520, et 1873, p. 307, et Nomencl. p. 135.

Urax tuberosa, Burm. Syst. Ueb. iii. p. 348.

Ourax erythrorhynchus, Swains. Classif. of B. ii. p. 352, et An. in Men. p. 187.

Urax erythrorhynchus, Cab. in Schomb. Guian. iii. p. 747.

Nigra purpurascens perfusa: ventre imo castaneo: caudæ apice albo: loris dense plumosis: pilei plumis elongatis: rostri culmine valde elevato, antice cultrato, postice

incrassato, rubro: pedibus rubris: long. tota 33, alæ 14, caudæ 12, tarsi 4. *Fem.* mari similis.

Hab. Rio Madeira and Mato Grosso (*Natterer*); Rio Tapajos (*Bates*); Eastern Peru, Chamicurros, and Loreto (*E. Bartlett*).

The occurrence of this Curassow in British Guiana, though asserted by Schomburgk, appears to be very doubtful. It is a more southern species, and is probably only met with on the south side of the Amazons. Natterer obtained specimens of it near the city of Mato Grosso, and at various other points as he descended the Madeira. Bates met with it on the Rio Tapajos, and Bartlett on the Upper Amazons in Eastern Peru.

Two males of this species (*b* and *h* of list), examined by Mr. Garrod, both presented a fair-sized tracheal loop.

List of specimens of Mitua tuberosa exhibited since 1860.

<i>a.</i>	Purchased.	August 6, 1860.
<i>b, c.</i>	Presented by the Prince de Joinville.	October 13, 1863.
<i>d, e.</i>	Presented by Sir William Clay, Bart.	December 17, 1863.
<i>f.</i>	Presented by E. Thornton, Esq.	May 4, 1867.
<i>g.</i>	Purchased.	May 25, 1870.
<i>h, i.</i>	Presented by Mrs. A. E. Nash.	January 2, 1875.

2. MITUA TOMENTOSA. (Plate LII.)

Crax tomentosa, Spix, Av. Bras. ii. p. 49, t. 63.

Pauxi tomentosa, G. R. Gray, Gen. of B. iii. p. 487, et Hand-l. ii. p. 254.

Urax tomentosa, Cab. in Schomb. Guian. iii. p. 746; Burm. Syst. Ueb. iii. p. 349.

Ourax tomentosa, Pelz. Orn. Bras. p. 288.

Mitua tomentosa, Scl. et Salv. P. Z. S. 1870, p. 520, et Nomencl. p. 135.

Nigra, purpureo nitens: ventre imo castaneo: caudæ apice rufo: pilei plumis sub-elongatis, paulum exstantibus: loris dense plumosis: rostri culmine elevato, subcompresso, rotundato, rubro, apice flavicante: pedibus rubris: long. tota 33, alæ 15, caudæ 13·5, tarsi 4·5. *Fem.* mari similis.

Hab. British Guiana (*Schomb.*); Rio Negro (*Spix* and *Natt.*); Rio Brancho (*Natt.*).

Spix, the discoverer of this species, met with it on the Rio Negro, where Natterer also obtained many examples, as likewise on its northern affluent, the Rio Brancho. Schomburgk tells us that it is found on the wooded river-banks of the Savanna-rivers of British Guiana.

List of specimens of Mitua tomentosa exhibited since 1860.

<i>a, b.</i>	Purchased.	January 14, 1862.
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Genus IV. PAUXIS¹.

PAUXIS GALEATA. (Plate LIII.)

Crax pauxi, Linn. S. N. i. p. 270.

Pierre de Cayenne, Buff. Pl. Enl. 78.

Crax galeata, Lath. Ind. Orn. ii. p. 624.

Pauxi galeata, Temm. Fig. et Gall. iii. pp. 1 et 683; Gray, Gen. of B. iii. p. 487, et Hand-l. ii. p. 354; Reichenb. Tauben, p. 137; Scl. et Salv. P. Z. S. 1870, p. 519, et Nomencl. p. 135; Scl. P. Z. S. 1870, p. 669.

Ourax pauxi, Cuv. Règn. Anim. 1817, i. p. 441; Bennett, Gard. & Men. ii. p. 65.

Lophocerus galeatus, Swains. Classif. of B. ii. p. 353 et An. in Mén. p. 184.

Ourax galeata, Tsch. F. P. p. 289.

Nigra æneo nitens: ventre imo et caudæ apice albis: pilei plumis brevibus, erectis: tuberculo frontali maximo, oviformi, cæruleo: rostro rubro: pedibus carneis: loris dense plumosis: long. tota 34, alæ 16, caudæ 13, tarsi 4. *Fem.* mari similis, sed statura paulo minore.

Hab. Venezuela: Rio Cassiquiari, and Upper Orinoco (*Natt.*); near Caracas (*Levrault* in *Mus. Paris*); near Tucacas (*Warmington*).

Natterer heard of this bird's existence when on the Upper Rio Negro, and has recorded that, according to information received from the natives, it occurs on the Rio Cassiquiari and adjoining parts of the Orinoco, and is called by the natives "*Pauxi de piedra*," or Stone Curassow—a name also sometimes applied to it in English, from the pebble-like projection on the front of the bill.

In Gray and Mitchell's 'Genera of Birds' (pl. cxxii.), a figure is given of a brown bird (taken from a specimen in the gallery of the British Museum) which is named "*Pauxi galeata*." At the time Mr. Salvin and I prepared our Synopsis of the Cracidae, we were of opinion that this form (which is also represented here, Pl. LIII. fig. 2) was the normal female of the present species. But this appears not to be the case. Mr. Vekemans informs me that in a pair of these birds in the Antwerp Gardens, the female of which laid eggs in 1874, the only difference consists in the smaller size of the female.

Mr. G. Dawson Rowley, F.Z.S., writes to me upon the same subject as follows:—

"In Gray's Genera, vol. iii., I find the plate of a brown bird named *Pauxi galeata*, of which I have shown to you an example living in my aviary. This example has been with me in perfect health for more than five years. It only differs from Gray's figure in that the edges of the feathers of the back and tail are nearly white, while he makes them light brown; but this I suppose to be the consequence of age, as my bird is old, and the plumage is very perfect, fine and glossy. This bird is an undoubted hen.

¹ Emended from "*Pauxi*," in the same way as "*Mitua*" from "*Mitu*." Cf. Strickland, Ann. N. H. vii. p. 36 (1841).

“When I had the pleasure of consulting several high authorities respecting this bird, they all agreed that it was the female of *Pauxi galeata*, which for some time satisfied me. But one of the *supposed black males* of *Pauxi galeata* in my aviary, small in size, has been seen to lay an egg, and has paired with the other black male, thus proving that the female in this species is exactly like the male, and not as described by you. P. Z. S. 1870, p. 519.”

Under these circumstances, I think there can be no question that the *normal* female of the present species resembles the male in plumage, and that the red bird either is of a distinct species or presents the exceptional case of a dimorphic female. I rather incline to the latter view, because Mr. Rowley's specimen was, I believe, received from the same port as his pair of the ordinary *Pauxi galeata*, and because Temminck¹ says of this species, “Le plumage des femelles ne diffère point: les jeunes ont des teintes brunes et rousses.” It may be, therefore, that in some cases the females remain throughout life in the immature plumage, as, I have reason to suspect, is sometimes the case in other species where the adult male and female are clad alike and the young has a different dress.

List of specimens of Pauxis galeata exhibited since 1860.

a, b. Males (?) Purchased. July 28, 1870.

DESCRIPTION OF THE PLATES.

PLATE XL.

Crax globicera, male and female, from specimens living in the Society's Gardens in September 1870.

PLATE XLI.

Crax daubentoni, male, from a specimen received from Tucacas, Venezuela, and presented to the Society by Mr. J. Wright, September 29, 1870. See Rev. Cat. of Vert. (1872) p. 295.

PLATE XLII.

Crax daubentoni, female, from the specimen received on the same occasion.

¹ Fig. et Gall. iii. p. 4.

PLATE XLIII.

Crax alector, male and female. Male, from a specimen living in the Society's Gardens in September 1870. Female, from a skin collected by Natterer at Barra do Rio Negro in September 1832, now in the collection of Messrs. Salvin and Godman.

PLATE XLIV.

Crax sclateri, male and female, from skins obtained by Natterer on the Rio de Cabaçal in 1825, now in Messrs. Salvin and Godman's collection.

PLATE XLV.

Crax sclateri, female, from a specimen living in the Society's Gardens in 1870, originally presented by the Prince de Joinville, October 13, 1863. See Rev. Cat. Vert. p. 294.

PLATE XLVI.

Crax globulosa, male and female, from skins in the collection of Mr. G. N. Lawrence, of New York, C.M.Z.S.

PLATE XLVII.

Crax carunculata, male and female. Male, from a mounted specimen in the British Museum. Female, from a specimen living in the Society's Gardens.

PLATE XLVIII.

Crax alberti, male and female. Male, from a bird living in the Gardens of the Zoological Society of Amsterdam. Female, from a specimen living in the Society's Gardens.

PLATE XLIX.

Crax incommoda, from the typical specimen living in the Society's Gardens, drawn in October 1871.

PLATE L.

Nothocrax urumutum, from a specimen in the British Museum.

PLATE LI.

Mitua tuberosa, from a specimen living in the Society's Gardens, September 1870.

PLATE LII.

Mitua tomentosa, from a skin collected by Natterer at Marabitanas in April 1831, now in the collection of Messrs. Salvin and Godman.

PLATE LIII.

Fig. 1. *Pauxis galeata*, from a specimen living in the Society's Gardens in 1874, being one of two specimens purchased July 23, 1870. See P. Z. S. 1870, p. 669.

Fig. 2. *Pauxis galeata*, var. *rubra*, from the specimen in the British Museum.